

General

Title

Perioperative care: percentage of patients, aged 18 years and older, who undergo a procedure under an inhalational general anesthetic, AND who have three or more risk factors for postoperative nausea and vomiting (PONV), who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively or intraoperatively.

Source(s)

American Society of Anesthesiologists (ASA). Prevention of post-operative nausea and vomiting (PONV) – combination therapy. Schaumburg (IL): American Society of Anesthesiologists (ASA); 2015 Oct 1. 2 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients, aged 18 years and older, who undergo a procedure under an inhalational general anesthetic, AND who have three or more risk factors for postoperative nausea and vomiting (PONV), who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively or intraoperatively.

Rationale

Postoperative nausea and vomiting (PONV) is an important patient-centered outcome of anesthesia care. PONV is highly dissatisfying to patients, although rarely life-threatening. A large body of scientific literature has defined risk factors for PONV; demonstrated effective prophylactic regimes based on these risk factors; and demonstrated high variability in this outcome across individual centers and providers

(Kranke & Eberhart, 2011; Singla et al., 2010). Further, a number of papers have shown that performance can be assessed at the level of individual providers — the outcome is common enough that sufficient power exists to assess variability and improvement at this level (Dzwonczyk et al., 2012).

Clinical Recommendation Statements:

The following evidence statements are quoted verbatim from the referenced clinical guidelines: Society for Ambulatory Anesthesia (SAMBA) PONV prophylaxis recommendations:

Administer prophylactic therapy with combination (greater than or equal to 2) interventions/multimodal therapy in patients at high risk for PONV (Gan et al., 2014).

Evidence for Rationale

American Society of Anesthesiologists (ASA). Prevention of post-operative nausea and vomiting (PONV) — combination therapy. Schaumburg (IL): American Society of Anesthesiologists (ASA); 2015 Oct 1. 2 p.

Dzwonczyk R, Weaver TE, Puente EG, Bergese SD. Postoperative nausea and vomiting prophylaxis from an economic point of view. *Am J Ther.* 2012 Jan;19(1):11-5. [PubMed](#)

Gan TJ, Diemunsch P, Habib AS, Kovac A, Kranke P, Meyer TA, Watcha M, Chung F, Angus S, Apfel CC, Bergese SD, Candiotti KA, Chan MT, Davis PJ, Hooper VD, Lagoo-Deenadayan S, Myles P, Nezat G, Philip BK, Tram  r MR, Society for Ambulatory Anesthesia. Consensus guidelines for the management of postoperative nausea and vomiting. *Anesth Analg.* 2014 Jan;118(1):85-113. [PubMed](#)

Kranke P, Eberhart LH. Possibilities and limitations in the pharmacological management of postoperative nausea and vomiting. *Eur J Anaesthesiol.* 2011 Nov;28(11):758-65. [PubMed](#)

Singla NK, Singla SK, Chung F, Kutsogiannis DJ, Blackburn L, Lane SR, Levin J, Johnson B, Pergolizzi JV Jr. Phase II study to evaluate the safety and efficacy of the oral neurokinin-1 receptor antagonist casopitant (GW679769) administered with ondansetron for the prevention of postoperative and postdischarge nausea and vomiting in high-risk patients. *Anesthesiology.* 2010;113(1):74-82. [PubMed](#)

Primary Health Components

Perioperative care; inhalational general anesthetic; postoperative nausea and vomiting (PONV); prophylaxis; pharmacologic anti-emetic agents

Denominator Description

All patients, aged 18 years and older, who undergo any procedure including surgical, therapeutic or diagnostic under an inhalational general anesthetic, AND who have three or more risk factors for postoperative nausea and vomiting (PONV) (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Patients who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively or intraoperatively (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory Procedure/Imaging Center

Hospital Inpatient

Hospital Outpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

Statement of Acceptable Minimum Sample Size

Does not apply to this measure

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Health and Well-being of Communities

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Getting Better

Staying Healthy

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Unspecified

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Diagnostic Evaluation

Patient/Individual (Consumer) Characteristic

Therapeutic Intervention

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

All patients, aged 18 years and older, who undergo any procedure including surgical, therapeutic or diagnostic under an inhalational general anesthetic, AND who have three or more risk factors for postoperative nausea and vomiting (PONV)

Note: Risk factors for PONV are:

- Female gender
- History of PONV
- History of motion sickness
- Non-smoker
- Intended administration of opioids for post-operative analgesia. This includes use of opioids given intraoperatively and whose effects extend into the post-anesthesia care unit (PACU) or postoperative period, or opioids given in the PACU, or opioids given after discharge from the PACU.

Exclusions

Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Patients who receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively or intraoperatively

Note: *Anti-emetics Therapy*:

The recommended first- and second-line classes of pharmacologic anti-emetics for postoperative nausea and vomiting (PONV) prophylaxis in patients at moderate to severe risk of PONV include (but are not limited to):

- Neurokinin 1 (NK-1) receptor antagonists
- 5-Hydroxytryptamine (5-HT₃) receptor antagonists
- Glucocorticoids
- Phenothiazines
- Phenylethylamines
- Butyrophenones
- Antihistamines
- Anticholinergics

The foregoing list of medications/drug names is based on clinical guidelines and other evidence. The specified drugs were selected based on the strength of evidence for their clinical effectiveness. This list of selected drugs may not be current. Physicians and other health care professionals should refer to the U.S. Food and Drug Administration (FDA)'s Web site page entitled "Drug Safety Communications" for up-to-date drug recall and alert information when prescribing medications.

Exclusions

Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Registry data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Prevention of post-operative nausea and vomiting (PONV) – combination therapy.

Measure Collection Name

Perioperative Care

Submitter

American Society of Anesthesiologists - Medical Specialty Society

Developer

American Society of Anesthesiologists - Medical Specialty Society

Physician Consortium for Performance Improvement® - Clinical Specialty Collaboration

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

Work Group Members

Alexander A. Hannenberg, MD (*Co-chair*); Andrew J. Patterson, MD, PhD (*Co-chair*); William R. Andrews, MD, MS; Rebecca A. Aslakson, MD, PhD; Daniel R. Brown, MD, PhD; Neal H. Cohen, MD, MPH, MS; Peggy Duke, MD; Heidi L. Frankel, MD; Lorraine M. Jordan, BSN, MS, PhD; Jeremy M. Kahn, MD, MS; Jason N. Katz, MD, MHS; Gerald A. Maccioli, MD; Catherine L. Scholl, MD; Todd L. Slesinger, MD; Victoria M. Steelman, PhD, RN; Avery Tung, MD

Work Group Staff

Meredith Herzog, American Board of Medical Specialties; Maureen Amos, American Society of Anesthesiologists; Mark Antman, DDS, MBA, American Medical Association; Elvia Chavarria, MPH, American Medical Association; Jodie Dvorkin, MD, MPH, American Medical Association; Kendra Hanley, MS, American Medical Association; Jennifer Heffernan, MPH, American Medical Association; Toni Kaye, MPH, American Medical Association; Kimberly Smuk, RHIA, American Medical Association; Elvira L. Ryan, MBA, BSN, RN, The Joint Commission

Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

Measure Initiative(s)

Physician Quality Reporting System

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Oct

Measure Maintenance

Annually

Date of Next Anticipated Revision

2016 Nov

Measure Status

This is the current release of the measure.

Measure Availability

Source available from the [American Society of Anesthesiologists \(ASA\) Web site](#) .

For more information, contact ASA at 1061 American Lane Schaumburg, IL 60173-4973; Phone: 847-825-5586; Fax: 847-825-1692; E-mail: info@asahq.org; Web site: asahq.org .

NQMC Status

This NQMC summary was completed by ECRI Institute on March 23, 2016. The information was verified by the measure developer on April 26, 2016.

Copyright Statement

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

For more information, please contact the American Society of Anesthesiologists (ASA) for downloading, use and reproduction at (847) 825-5589 or (202) 289-2222.

The Measures are not clinical guidelines, do not establish a standard of medical care, and have not been tested for all potential applications.

The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, eg, use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain.

Commercial uses of the Measures require a license agreement between the user and the American Medical Association (AMA), [on behalf of the Physician Consortium for Performance Improvement® (PCPI®)] or American Society of Anesthesiologists (ASA). Neither the AMA, ASA, PCPI, nor its members shall be responsible for any use of the Measures.

The AMA's, PCPI's and National Committee for Quality Assurance's significant past efforts and contributions to the development and updating of the Measures is acknowledged. ASA is solely responsible for the review and enhancement ("Maintenance") of the Measures as of May 23, 2014. ASA encourages use of the Measures by other health care professionals, where appropriate.

THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

© 2014 American Medical Association and American Society of Anesthesiologists. All Rights Reserved.
Applicable FARS/DFARS Restrictions Apply to Government Use.

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, ASA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

CPT® contained in the Measures specifications is copyright 2004-2013 American Medical Association. LOINC® copyright 2004-2013 Regenstrief Institute, Inc. SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2013 College of American Pathologists. All Rights Reserved.

Production

Source(s)

American Society of Anesthesiologists (ASA). Prevention of post-operative nausea and vomiting (PONV) with combination therapy. Schaumburg (IL): American Society of Anesthesiologists (ASA); 2015 Oct 1. 2 p.

Disclaimer

NQMC Disclaimer

The National Quality Measures Clearinghouse (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the [NQMC Inclusion Criteria](#).

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. Moreover, the views and opinions of developers or authors of measures represented on this site do not necessarily state or reflect those of NQMC, AHRQ, or its contractor, ECRI Institute, and inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.